IN THE UNITED STATES PATENT AND TRADEMARK OFFICE ATTY. DOCKET NO. 14682 (RAB:rld)

II W#

Patent Application of Mohiuddin Mala, et al.

Serial No. 10/827,252

Group Art Unit: 2873

Filed: April 20, 2004

Examiner:

William C. Choi

For:

A MICRO-ELECTRO-MECHANICAL-SYSTEM TWO DIMENSIONAL MIRROR WITH ARTICULATED SUSPENSION STRUCTURES FOR HIGH FILL FACTOR ARRAYS

INFORMATION DISCLOSURE STATEMENT

This Information Disclosure Statement is being filed in the manner prescribed by 37 CFR

1.97(b) - (d) to satisfy the duty under 37 CFR 1.56 to disclose to the Office information, known

to individuals associated with the filing and prosecution of the subject application, which is

material to the examination of the application.

In accordance with 37 CFR 1.97(g) and (h), this statement is not to be construed as a

representation that a search has been made or an admission that the information cited herein is,

or is considered to be, material to patentability as defined in 37 CFR 1.56(b).

This Information Disclosure Statement is being filed after the first official action but before the

earlier of the mailing date of a final action under 37 CFR 1.113, a notice of allowance under 37

CFR 1.311, or any other action that closes prosecution of the application. Under 37 CFR

1.97(c), this Information Disclosure Statement is accompanied by either a certification as

specified in paragraph (e) of 37 CFR 1.97 or the fee set forth in 37 CFR 1.17(p). Applicant

therefore respectfully requests consideration of this Information Disclosure Statement under 37

CFR 1.97(c).

A cheque in the amount of \$180.00 is enclosed herewith as payment of the fee for untimely

filing of references.

In compliance with 37 CFR 1.98(a)(2), also enclosed is a legible copy of:

i) each foreign patent;

ii) each publication or that portion which caused it to be listed; and

iii) all other information or that portion which caused it to be listed, excluding any

copies of a United States patent application.

In compliance with 37 CFR 1.98(a)(1), a list of all patents, publications, applications or other information submitted for consideration by the Office is hereby provided by way of the attached

Form PTO/SB/08.

It is respectfully requested that the information be expressly considered by the Examiner and that

the references be made of record and appear among the "References Cited" on any patent to

issue therefrom.

The Patent Office is hereby authorized to charge any deficiency, or credit any overpayment in

fees to Deposit Account Number 19-2550.

Respectfully submitted,

MOHIUDDIN MALA, ET

Dated: December 7, 2005

Ralph A. Dowell

Reg. No. 26,868

Telephone: (703) 415-2555

Encls.:

Form PTO/SB/08

All references listed on Form PTO/SB/08

Cheque for late fee - \$180.00 Acknowledgement Card

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PTO/SB/08A (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
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	Application Number
INFORMATION DISCLOSURE	Filing Date
	First Named Inventor
STATEMENT BY APPLICANT	Art Unit
(Use as many sheets as necessary)	Examiner Name

 Complete if Known

 Application Number
 10/827,252

 Filing Date
 April 20, 2004

 First Named Inventor
 Mohiuddin Mala

 Art Unit
 2873

 Examiner Name
 William C. Choi

 Attorney Docket Number
 14682

Sheet 1 of 2

Substitute for form 1449/PTO

			U.S. PATENT	DOCUMENTS	
Examiner Initials *	Cite No. 1	Document Number Number-Kind code ² (if known)	Publication Date MM-DD-YYY	Name of Patentee or Applicant of Cited Document	Page, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	AA	US-6,495,893	12-17-2002	Lin et al.	
	AB	US-6,533,947	03-18-2003	Nasiri et al.	
	AC	US-4,317,611	03-02-1982	Petersen	
	AD	US-5,543,956	08-06-1996	Nakagawa et al.	
	AE	US-5,629,790	05-13-1997	Neukermans et al.	
	AF	US-5,920,417	07-06-1999	Johnson	
	AG	US-6,044,705	04-04-2000	Neukermans et al.	
	AH	US-6,198,565	03-06-2001	Iseki et al.	
	Al	US-6,259,548	07-10-2001	Tsugai et al.	
	AJ	US-6,747,786	06-08-2004	Murakami et al.	
	AK	US-6,778,728	08-17-2004	Taylor et al.	
	AL	US-6,781,744	08-24-2004	Aksyuk et al.	
	AM	US-6,760,144	07-06-2004	Hill et al.	
	AN	US-6,822,370	11-23-2004	Clark et al.	
	AO	US-2004/0212864	10-28-2004	Greywall et al.	
		US-			

FOREIGN PATENT DOCUMENTS						
Examiner Initials *	Cite No. 1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	
initials	140.	Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	MM-DD-YYYY	, , , , , , , , , , , , , , , , , , , ,	Or Relevant Figures Appear	Т6

Examiner	Date	
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Sheet	2	of	2

Complete if Known			
Application Number	10/827,252		
Filing Date	April 20, 2004		
First Named Inventor	Mohiuddin Mala		
Art Unit	2873		
Examiner Name	William C. Choi		
Attorney Docket Number	14682		

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No. 1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages), volume-issue number(s), publisher, city and /or country where published.	T ²
	AP	Lopez, D., et al.; MONOLITHIC MEMS OPTICAL SWITCH WITH AMPLIFIED OUT-OF-PLANE ANGULAR MOTION; IEEE, 2002, pgs 165-166.	
	AQ	Garcia, Ernest J.; PIVOTING MICROMIRROR DESIGNS FOR LARGE ORIENTATION ANGLES; Proceedings SPIE 4178, pgs 126-136.	
	AR	Kehr, Kersten, et al.; ANALOGOUSLY WORKING MICROMIRROR ARRAYS; Part of the SPIE Conference on Miniaturized Systems with Micro-Optics and MEMS, Santa Clara, September 1999, SPIE Vol. 3878, pgs 80-89.	
	AS	Giles, C.R. et al.; A SILICON MEMS OPTICAL SWITCH ATTENUATOR AND ITS USE IN LIGHTWAVE SUBSYSTEMS; IEEE Journal of Selected Topics in Quantum Electronics, Vol. 5, No. 1, January/February 1999, pgs 18-25.	
			
Examiner Signature		Date Considered	

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